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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,736	04/02/2004	Hidetoshi Toyoda	0505-1289PUS1	1542

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EXAMINER

BOEHLER, ANNE MARIE M

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/815,736	Applicant(s) TOYODA, HIDETOSHI	
	Examiner Anne Marie M. Boehler	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Claim 21 is objected to because of the following informalities: In line 15, "respective centers of" should be deleted. Appropriate correction is required.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-8, 10, 11, 15-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gogo (PGPub 2002/0027035).

Gogo shows an embodiment in Figure 7 having a swing arm 72 and a first link 73 pivotally connected to a top end of the swing arm and the top end of a shock absorber 34. A second link pivotally connects to the first link at 77 and to the vehicle body at 68, which is below the pivotal connection of the swing arm and below the first link. In Figure 7, the first link axis (along 73) and the second axis (along 74) appears to cross each other at a steep angle (not far from 90 degrees). Other than what is shown in the drawings, Gogo is silent regarding the angle and It is not clear if the suspension shown in Figure 7 is in a neutral position. However, since it is not described as being extended or in compression, it is presumed to be near its neutral position. It would have been obvious to one of ordinary skill in the art to configure the links and shock absorber of Gogo so that the angle between the links crosses 90 degrees between maximum and minimum compression of the shock absorber, in order to provide a long range of motion of the shock absorber.

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4. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gogo as applied to claims 1 and 11 above, and further in view of Shiratsuchi (USPN 4,556,119).

Gogo shows an extension 75 for mounting the first link to the swing arm.

Shiratsuchi shows a suspension link 84 mounted between swing arms 36.

It would have been obvious to one of ordinary skill in the art to provide the connection for the Gogo first link between the swing arms, as taught by Shiratsuchi in order to eliminate the need for a separate extension.

5. Claims 2-4 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gogo as applied to claims 1 and 11 above, and further in view of Miyakoshi (USPN 4,744,434).

Gogo is silent regarding a lower reinforcement for the rear fork and it shows an extension 75 for mounting the first link to the swing arm.

Miyakoshi shows a rear swing arm 10 with forks 12 and lower reinforcements 13, 14. Suspension link 16 is mounted between swing arms rather than on a separate extension.

It would have been obvious to one of ordinary skill in the art to provide the swing arm of Gogo with lower reinforcements and to connect the link between the swing arms, as taught by Miyakoshi, in order to reinforce the rear fork and eliminate the need for a separate extension.

6. Claims 21 and 22 are allowed.

7. Applicant's arguments filed May 25, 2006 have been fully considered but they are not persuasive.

Applicant argues that Gogo fails to teach the claimed first and second axes meeting at an acute angle when the shock absorber is at maximum extension. The examiner disagrees. As long as the axes are not collinear, parallel or perpendicular to each other, they will form acute and obtuse angles relative to each other. Therefore, as broadly defined, the Gogo reference suggests this relationship.

Applicant argues that Gogo fails to disclose that the angle between the first and second axes claimed crosses 90 degrees between maximum and minimum compression of the shock absorber. The examiner disagrees. The drawings suggest the suspension system is at rest, neither at maximum nor minimum compression. They appear to depict a system where movement of the shock absorber toward maximum extension of the shock absorber, for example, when the suspension becomes unloaded, would result in the angle between the axes passing through 90 degrees. Therefore, the rejection is being maintained.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie M. Boehler whose telephone number is 571-272-6641. The examiner can normally be reached on 7:30-5:00, Monday-Thursday, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 571-272-6612. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 8/4/08
Anne Marie M. Boehler
Primary Examiner
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